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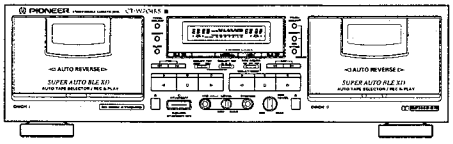
The Art of Entertainment

Service Manual



ORDER NO.
RRV1230

STEREO DOUBLE CASSETTE DECK

CT-W704RS

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	CT-W704RS		
KUXJ	○	AC120V	
KCXJ	○	AC120V	

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

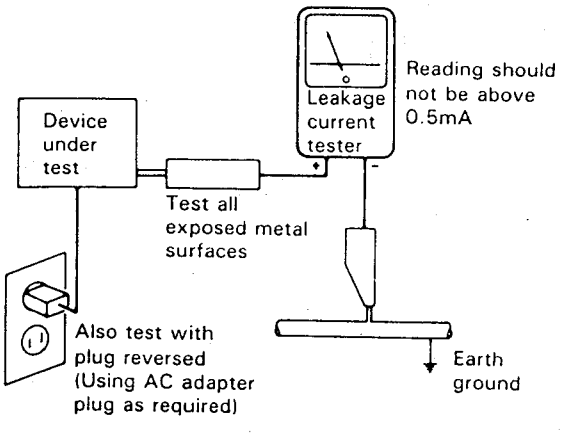
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Leakage current tester
Reading should not be above 0.5mA
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

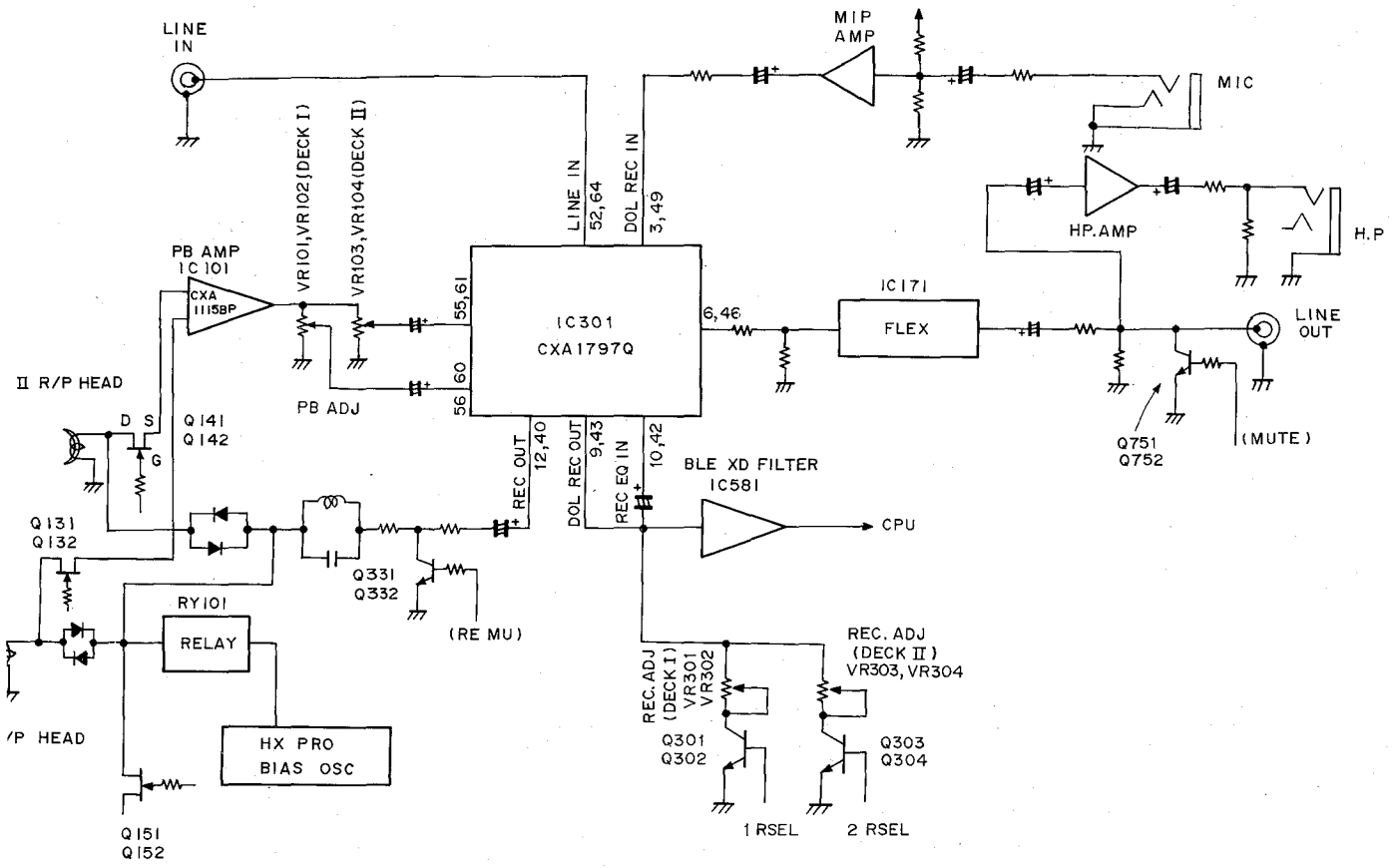
2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. BLOCK DIAGRAM



3. EXPLODED VIEWS, PACKING AND PARTS LIST

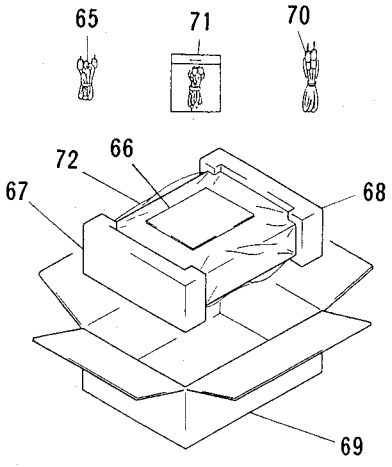
NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by " ⊙ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

1. EXTERIOR AND PACKING

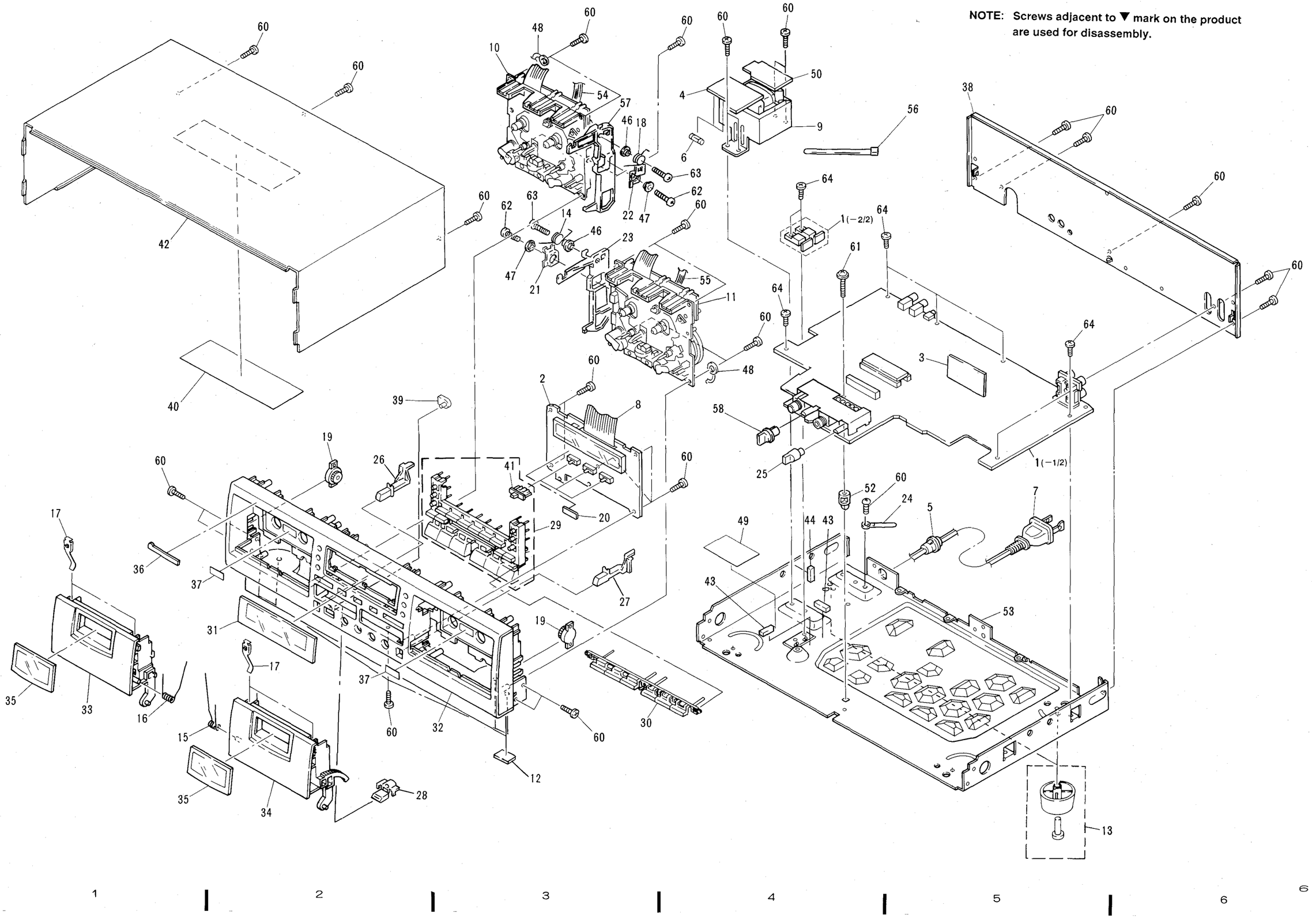
Mark	No.	Description	Parts No.
	1	Main Unit	RWZ3469
	2	Sub Unit	RWZ3502
	3	Dolby S Unit	RWX1101
NSP	4	Transformer 2 Unit	RWZ3503
⚠	5	Strain Relief	CM-22C
⚠	6	Fuse (1.5A)	REK1059
⚠	7	AC Power Cord	PDG1015
	8	Lead Card 30P	RDD1334
⚠	9	Power Transformer	RTT1223
	10	1 Mechanism Unit	RYM1238
	11	2 Mechanism Unit	RYM1238
	12	Rubber Sheet	AEB1111
	13	Foot Assy	AEC1531
	14	Eject Spring L	RBH1379
	15	Door Spring L	RBH1304
	16	Door Spring R	RBH1305
	17	Half Pressure Spring	RBK1004
	18	Eject Spring R	RBH1380
	19	Damper Assy	REC1005
	20	Knob Spacer	REC1195
	21	Eject Arm L	RNE1763
	22	Eject Arm R	RNE1764
	23	Eject Lever L	RNK2045
	24	Cord Clamper	RNH-184
	25	Balance Knob	RAC1705
	26	Eject Konb L	RAC1881
	27	Eject Konb R	RAC1882
	28	Power Knob	RAC1883
	29	Control Knob	RAC1986
	30	REC Knob A	RAC1777
	31	FL Lens	RAH2374
	32	Front Panel	RAH2505
	33	Door Pocket L	RAH2516
	34	Door Pocket R	RAH2517
	35	Door Lens	RAH2435
	36	Name Plate	RAM1007
	37	Remain Display Paper	REE-113
	38	Rear Panel (CT-W704RS/KCXJ)	RNA1901
	38	Rear Panel (CT-W704RS/KUXJ)	RNA1900
	39	LED Lens	PNW2019
	40	65 Label (CT-W704RS/KUXJ only)	ORW1069
	41	Slide Knob	REA1078
	42	Bonnet	REA1077
NSP	43	Spacer	REB1267
NSP	44	Spacer	REB1171
	45	.....	
NSP	46	Eject Collar	RLA1283
NSP	47	Arm Collar	RLA1290
NSP	48	Earth Lead Unit	XDF-504
NSP	49	Fuse Caution Label	RRW-111
NSP	50	Transformer 1 PCB	RNZ2861
	51	.....	
	52	PCB Spacer	PNY-404
NSP	53	Main Chassis	RNB1091
	54	Connector Assy 5P	RKP1676
	55	Connector Assy 5P	RKP1677
NSP	56	Binder	Z09-057
	57	Eject Lever R	RNK2046
	58	Knob (Headphone)	VNK1262
	59	.....	
	60	Screw	BBZ30P080FZK
	61	Screw	IBZ30P150FCU
	62	Screw	BCZ26P050FMC
	63	Screw	BSZ26P120FMC
	64	Screw	BBZ30P060FMC
	65	Control Cord	RDE1030
	66	Operating Instructions (French) (CT-W704RS/KCXJ)	RRD1154
	66	Operating Instructions (English)	RRB1154
	67	Pad	RHA1115
	68	Pad R	RHA1116
	69	Packing Case	RHG1628
	70	Connection Cord with Mini Plug	PDE-319
	71	Connection Cord Assy	RDE1036
	72	Sheet	Z23-007

Packing

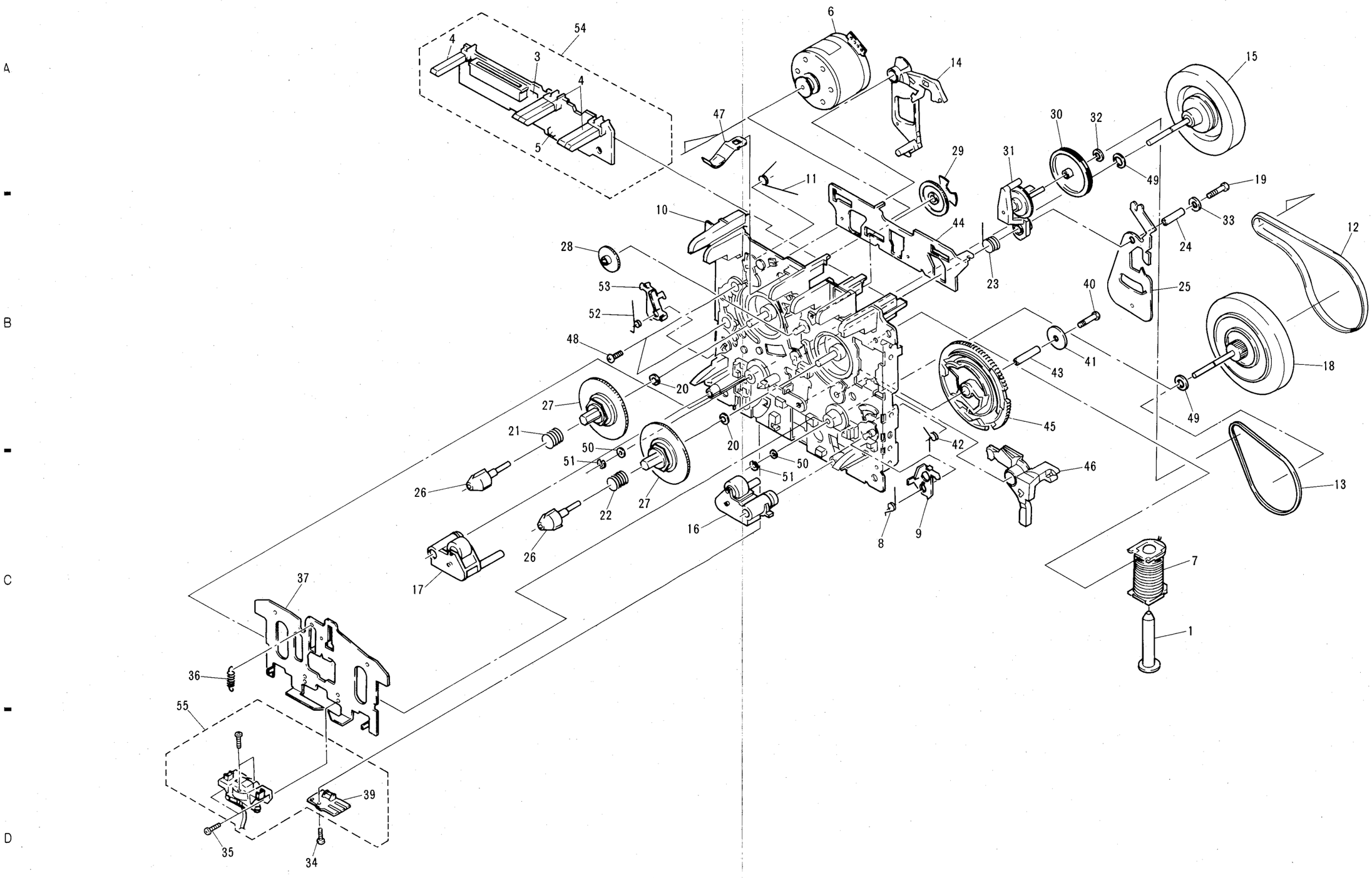


Exterior

NOTE: Screws adjacent to ▼ mark on the product are used for disassembly.



2. 1 MECHANISM UNIT AND 2 MECHANISM UNIT



Parts List

Mark	No.	Description	Parts No.
	1	Plunger	RLA1288
	2	.....	
	3	Push Switch	RSG1018
	4	SPLF	RSN1023
	5	Photo-Transistor	SPI33534FG
	6	MTR Main BLK	RXM1081
	7	Solenoid BLK	RXP1021
	8	Spring Interlock R	RBH1386
	9	Arm Interlock R	RNE1781
	10	Chassis Base BLK	RXA1626
	11	Spring Brake	RBH1387
	12	Main Belt	REB1157
	13	F/R Belt	REB1254
	14	Lever Brake	RNK2071
	15	F/W Assy	RXA1428
	16	Pinch Roller BLK R	RXA1628
	17	Pinch Roller BLK L	RXA1629
	18	Clutch BLK Assy	RXA1631
	19	Screw	RBA1113
	20	Washer 2.1 × 0.25T	RBF1038
	21	Spring Reel (L)	RBH1388
	22	Spring Reel (R)	RBH1389
	23	Cam Spring	RBH1393
	24	Spacer	RLA1286
	25	Lever F/R	RNE1782
	26	Reel Feather	RNK2072
	27	Reel Base	RNK2073
	28	Play Gear (A)	RNK2074
	29	FF Gear (A)	RNK2075
	30	F/R Pulley	RNK2076
	31	Clutch BLK Assy	RXA1632
	32	Washer	WA17D040D025
	33	Washer	WA23F060M040
	34	Screw	PCZ20P040FMC
	35	Screw	RBA1077
	36	Spring HB	RBH1390
	37	Head Base	RNE1783
	38	.....	
	39	HD PCB 5P	RXA1635
	40	Screw	RBA1113
	41	Washer 2.0 × 0.3	RBE1009
	42	Spring Arm Play	RBH1392
	43	Spacer	RLA1286
	44	Plate Slide	RNE1785
	45	Cam Gear	RNK2078
	46	Arm Play	RNK2079
	47	Spring Cassette	RNE1786
	48	Screw	BMZ26P040FZK
	49	Washer	WA26D045D025
	50	Washer	WA26D047D050
	51	Stop Ring	YE15FUC
	52	Spring Interlock L	RBH1385
	53	Arm Interlock L	RNE1780
	54	PCB Control BLK	RXA1624
	55	Plate HD BLK	RXA1683

4. TEST MODE

1. Entering the Test Mode

- To enter the test mode, set both DECK I and DECK II into the STOP mode and press the TIME/COUNT key of DECK I, RESET key of DECK I and PAUSE key of DECK II all together. (Refer to Fig. 4–1)

Exiting the Test Mode

To exit the test mode, press the RESET key of DECK I or turn off the power.

2. Tape Speed Adjustment, Auto Stop Check Mode

- The following adjustments and check are possible in the test mode.

MODE No. (Deck II Display)	Adjustment and Check (The mechanism will operate even in the "no-half" state only for this mode.)
10	• Tape speed adjustment mode · During play (except during the assist), the speed can be doubled by pressing the FAST key (FF or REW key of DECK I or II). During double speed play, the play can be returned to normal speed by pressing the FWD or REV key.
10	• Auto stop check · The RELAY mode will be turned on forcibly. But the REC is not relayed from DECK II to DECK I. · Auto stop is carried out at tape end for one second only in this mode. (Usually four seconds.) · Reverse is carried out as normally, but if the reverse is carried out in double speed, the tape will be played at constant speed.

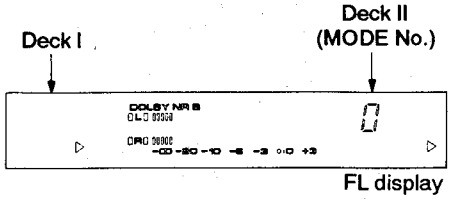


Fig. 4–1 FL display example 1
(The state of TEST MODE)

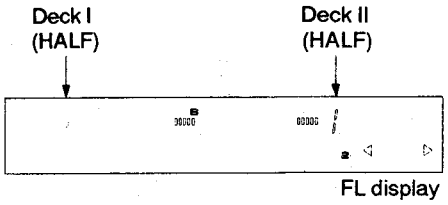


Fig. 4–2 FL display example 2
(The state of TIME/COUNT key ON
on the Deck I side)

3. CD SYNCHRO, SW Check Modes

- Test mode setting.

MODE No. (Deck II Display)	Key Input	LINE MUTE	REC MUTE	BIAS	Adjustment and check
20	CD SYNC	ON	ON	OFF	• CD SYNCHRO Check · Short-circuit one of the CD SYNCHRO cord's plugs. Connect the other plug to the CD SYNCHRO jack of the cassette deck. Press the CD SYNC key. If "CD SYNC" is displayed, the CD SYNCHRO mode is normal.
1 (When there is no half on the deck II side, "HALF" will be displayed.)	TIME/COUNT for Deck I	ON	ON	OFF	• SW Check · When there is no-half, the corresponding counter will display "HALF". · Mistaken Erasure Detection Check When FWD recording is possible : " ► " lights up When REW recording is possible : " ◄ " lights up · Reverse SW Check ⇄ : " I " lights up ⇆ : " II " lights up • Tape Detection Check Deck II Check NORMAL : Lch –3dB lights up CR02 : Lch 0dB lights up METAL : Lch +3dB lights up Deck I Check NORMAL : Lch –20dB lights up CR02 : Lch –10dB lights up METAL : Lch –6dB lights up

BLE Adjustment Mode

● Entering the BLE Adjustment Mode

Press the STOP KEY when the DECK II display is other than 10.
To set the BLE adjustment mode, press the BLE KEY of DECK II. When the key is pressed continuously, the BLE adjustment mode will change in order.

● Exiting the BLE Adjustment Mode

To exit the BLE adjustment mode, press the STOP KEY. The deck will set into the mechanism operation check mode.

Deck I Display	Deck II Display	Key Input	LINE OUT	REC MUTE	BIAS	Adjustment and Check
	30	2-BLE	OFF	ON	OFF	———
400	31XX	2-BLE	OFF	ON	OFF	• For AUTO BLE 400 Hz OSC output level adjustment mode □ □ □ ■ □ □ ■ ■ ■ □ ■ ■ Adjust so that the meter becomes as shown in the above diagram. (LINE OUT output = −23 dBV)
10k	32XX	2-BLE	OFF	ON	OFF	· For AUTO BLE 10 kHz OSC output level adjustment mode □ □ □ ■ □ □ ■ ■ ■ □ ■ ■ Adjust so that the meter becomes as shown in the above diagram. (LINE OUT output = −23 dBV)
12k	33XX	2-BLE	OFF	ON	OFF	· For AUTO BLE12 kHz OSC output level adjustment mode □ □ -□- -□- -□- □ ■ ■ ■ □ ■ ■ Make sure that the meter becomes as shown in the above diagram. (LINE OUT output = −10 dBV)
8k	34XX	2-BLE	OFF	ON	OFF	· For AUTO BLE 8 kHz OSC output level adjustment mode □ □ □ ■ □ □ ■ ■ ■ □ ■ ■ Adjust so that the meter becomes as shown in the above diagram. (LINE OUT output = −10 dBV)
3k	35XX	2-BLE	OFF	ON	OFF	· For AUTO BLE 3 kHz OSC output level adjustment mode □ □ -□- -□- -□- □ ■ ■ ■ □ ■ ■ Make sure that the meter becomes as shown in the above diagram. (LINE OUT output = −23 dBV)
HPFL	36XX	2-BLE	OFF	ON	OFF	· For BLE XD HIGH PASS FILTER Lch adjustment Input the 12.5 kHz, −10 dBV signal to LINE IN. □ □ -□- -□- -□- □ ■ ■ □ □ □ ■ Adjust so that the meter becomes as shown in the above diagram.
HPFr	37XX	2-BLE	OFF	ON	OFF	· For BLE XD HIGH PASS FILTER Rch adjustment Input the 12.5 kHz, −10 dBV signal to LINE IN. □ □ -□- -□- -□- □ ■ ■ □ □ □ ■ Adjust so that the meter becomes as shown in the above diagram.

※ ■ : Indicates lit □ : Indicates OFF -□-: Indicates lit or blinking

5. ADJUSTMENTS

1. MECHANICAL ADJUSTMENT

1.1 Door Damping Check and Adjustment

Set the door spring of the DECK I side to position (A) as shown in Fig. 5–1. Then, erect the front panel assembly vertically.
Open the doors of DECK I and DECK II at the same time. At this point, confirm that the difference between the door completely opened and the other door is within 15mm. If this standard is not satisfied install the door spring of DECK I at another position and adjust as follows:

- When the door of DECK I opens later than that of DECK II : Change the door spring of DECK II form A to B.
- When the door of DECK I opens faster than that of DECK II : Change the door spring of DECK I form A to B.

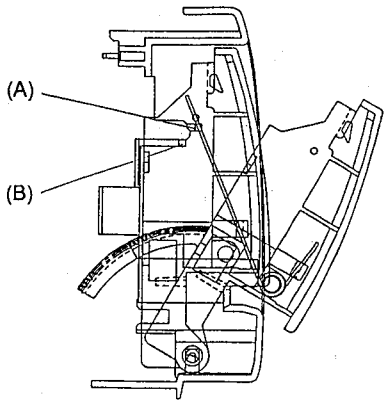


Fig. 5–1

1.2 Tape Speed

- Perform this adjustment in the test mode.
- TEST mode setting.

1. Press the TIME/COUNT and RESET keys of DECK I together with the PAUSE key of DECK II.
2. The speed becomes normal when the PLAY key is pressed, and double when the FF key is pressed.
3. To cancel the TEST mode, press the RESET key of DECK I.

1. Tape Speed Adjustment and Chack

No.	Deck	Mode	Test tape	Adjusting points	Specifications/Ratings (playback frequency)	Remarks
1	I	Double speed PLAY	STD-301 (3 kHz)	check	6000 Hz ± 600 Hz	
2	II			VR801	Within ± 10 Hz against the measurement value of the step 1 (deck I)	
3	I	MORMAL speed PLAY		VR851	2980 Hz ± 5 Hz	
4	II			VR802	Within ± 5 Hz against the measurement value of the step 3 (deck I)	

MAIN UNIT

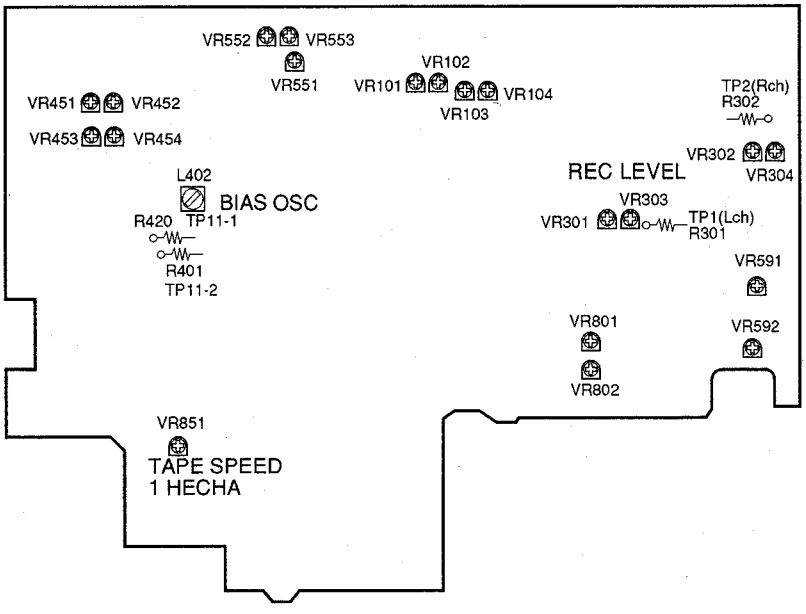


Fig. 5–2 Adjusting points

2. ELECTRICAL ADJUSTMENTS

Adjustment Conditions

1. The mechanical adjustments must be completed first.
2. The head must be cleaned and demagnetized.
3. Turn power on allow the deck to warm up for at least a few minutes before commencing any electrical adjustments.
4. The reference signal is 0 dBV = 1 Vrms.
5. Connect a 10 kΩ load resistance to the OUTPUT terminals.
6. Unless otherwise specified, the switches listed below are left in the positions indicated.
   DOLBY NR : OFF
   TAPE SELECTOR : NORM

Test Tapes

STD–331E	: Playback adjustments (See Fig. 5–3)
STD–631 or STD–632	: NORMAL blank tape
STD–621	: CrO_2 blank tape
STD–610	: METAL blank tape

* As the reference recording level is 250 nwb/m for STD–331E, the recording level will be higher by 4 dB for STD–331B (160 nwb/m). When adjusting, pay careful attention to the type of tape used.

List of Adjustments

Playback sections

1. Head azimuth adjustment.
2. Playback level adjustment.

Recording sections

1. Bias oscillator adjustment.
2. Recording bias adjustment.
3. Recording level adjustment.
4. Level meter check.
5. AUTO BLE adjustment.

NOTE: This unit has an automatic tape selection feature.

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"DOLBY", the double–D symbol ⊡⊡ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

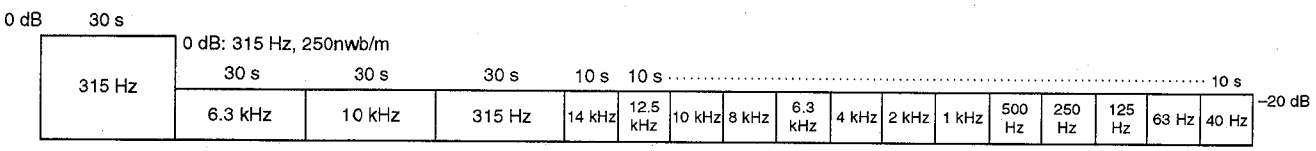


Fig. 5–3 Constants of the test tape STD–331E

DECK I and II

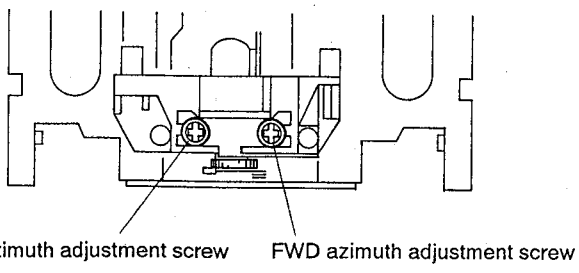
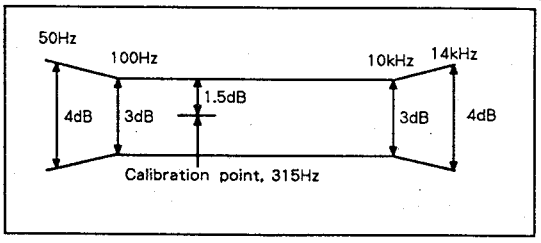


Fig. 5–4 Head azimuth adjustment

PLAY BACK



RECORDING

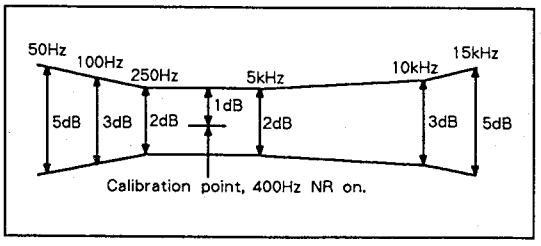


Fig. 5–5 Frequency response zone

PLAYBACK SECTION

1. Head Azimuth Adjustment

- Turn VR101, 102 (Deck I) or VR103, 104 (Deck II) to mechanical center positions.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 10 kHz/–20 dB section of STD–331E test tape.	Head azimuth adjustment screw. (See Fig. 5–4)	LINE OUT	Maximum playback signal level.	
2.	STOP	Lock the screw with silicon bond after completing adjustment.				

2. Playback Level Adjustment

- This adjustment determines the DOLBY NR level, and must be performed with great care.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 315 Hz/0 dB section of the STD-331E test tape.	Deck II	VR 103 (Lch) VR 104 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	–7.2 dBV	
			Deck I	VR 101 (Lch) VR 102 (Rch)			

RECORDING SECTION

1. Bias Oscillator Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC	Load the STD-610 test tape with no input signal.	Deck II	L402	TP. 11 – 2	105 kHz ± 0.3 kHz	If the values on the left cannot be atteined by adjusting, the value should be below 105 ± 3 kHz.

2. Recording Bias Adjustment

- After the adjustment, caution should be exercised so as not to become under bias by checking the distortion rate.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC	Record the 315 Hz and 10kHz signals at –26 dBV input level and playback. (STD-631 or STD-632)	Deck I	VR 451 (Lch) VR 452 (Rch)	LINE OUT	Repeatedly record, playback and adjust so that the playback level of 10 kHz signal becomes 0 dB ± 0.5 dB when compared with the 315 Hz signal.	
			Deck II	VR 453 (Lch) VR 454 (Rch)			

3. Recording Level Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC PAUSE	Apply a 315 Hz/0 dBV signal to the line input terminals, load the STD-631 or STD-632 test tape.	REC level control volume		TP. 1 (Lch) TP. 2 (Rch)	–11.2 dBV	
2.	REC/ PLAY	Record the above signal onto the STD-631 or STD-632 test tape, and playback.	Deck I	VR 301 (Lch) VR 302 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	Repeatedly record, playback and adjust so that the playback signal level becomes –11.2 dBV.	
			Deck II	VR 303 (Lch) VR 304 (Rch)			
3.	REC/ PLAY	Record the above signal onto the STD-621 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	–11.2 dBV ± 1.5 dB	
4.	REC/ PLAY	Record the above signal onto the STD-610 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	–11.2 dBV ± 1.5 dB	

4. Level Meter Check

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment Value	Remarks
1.	REC PAUSE	Apply a 315 Hz/–6 dBV (500 mV) signal to the Line Input terminals.	REC level control volume	TP. 1 (Lch) TP. 2 (Rch)	Check that the level meters "0dB" light up within –7.2 dBV ± 2 dB of the signal output level.	

5. AUTO BLE Adjustment (Deck II only)

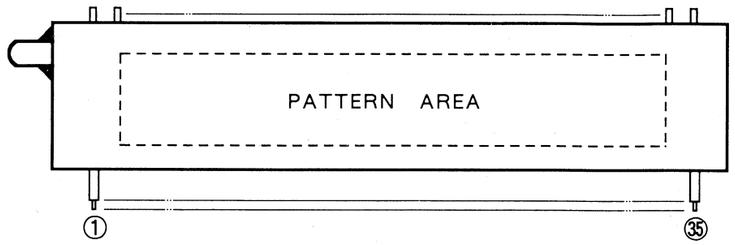
- BLE adjusiment should be performed after all other adjustments are completed.
- This adjustment should be performed in the test mode.
- Entering the test mode.
  For details of how to enter the test mode, refer to the "Mechanical Adjustment" section (Page 12)
- Refer to Page 11 "BLE Adjustment Mode".

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment Value	Remarks
1.	—	Set to test mode.	—	—	—	
2.		Press the 2 BLE XD key on the front panel.	VR552	Level meter (R channel)	Adjust so that – 3 dB on the level meter turn on.	400 Hz adjustment
3.		Press the 2 BLE XD key on the front panel.	VR551			10 kHz adjustment
4.		Press the 2 BLE XD key on the front panel.	VR553			8 kHz adjustment
5.	REC PAUSE	Apply a 12kHz/0 dBV signal to the line input terminals. Load the STD631 or STD632 test tape.	LINE OUT	REC level control volume	–10 dBV	
6.	—	Press the 2 BLE XD key on the front panel.	VR591	Level meter (R Channel)	Adjust so that – 3 dB on the level meter turn on.	12 kHz adjustment
7.	—	Press the 2 BLE XD key on the front panel.	VR592	Level meter (R Channel)	Adjust so that – 3 dB other level meter turn on.	12 kHz adjustment

Reference: The output of LINE OUT after completing the adjustments for 400 Hz, 10kHz, 3 kHz becomes – 23dBV ± 1dB. (Refer to page 11)

6. FL INFORMATION

■ RAW1146 (V1501)

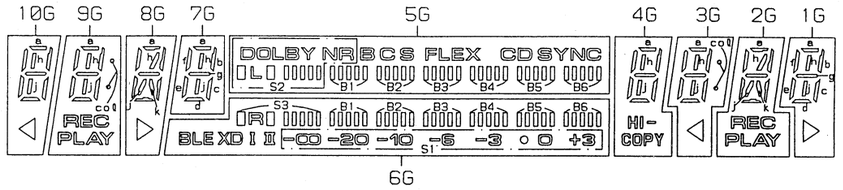


Pin Connection

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
CONNECTION	F1	F2	NP	NC	1G	2G	3G	4G	NC	5G	6G	7G	8G	NC	9G	10G	NC	NC	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	NC	NC	P1	P2	P3	P4	P5

NOTE 1) F1,F2 --- Filament
2) NP ------ No pin
3) NC ------ No connection
4) 1G~10G --- Grid

Grid Assignment


10G 9G 8G 7G 5G 4G 3G 2G 1G
DOLBY NR B C S FLEX CD SYNC
S2 B1 B2 B3 B4 B5 B6
S3 B1 B2 B3 B4 B5 B6
BLE XD I II –∞ –20 –10 –6 –3 0 +3
S1
REC PLAY
HI– COPY
REC PLAY
6G

Anode Connection

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	a	a	a	a	B1	B1	a	a	a	a
P2	b	b	b	b	B2	B2	b	b	b	b
P3	f	f	f	f	B3	B3	f	f	f	f
P4	g	g	g	g	B4	B4	g	g	g	g
P5	c	c	c	c	B5	B5	c	c	c	c
P6	e	e	e	e	B6	B6	e	e	e	e
P7	d	d	d	d	BLE	CD SYNC	d	d	d	d
P8	h, j	h, j	h, j	h, j	XD	B	h, j	h, j	h, j	h, j
P9	–	col	k	–	I	FLEX	HI–	col	k	–
P10	◁	PLAY	▷	–	II	C	COPY	◁	PLAY	▷
P11	–	REC	–	–	S1	S	–	–	REC	–
P12	–	–	–	–	S3	S2	–	–	–	–

7. SCHEMATIC AND PCB CONNECTION DIAGRAMS

1. DOLBY S UNIT

NOTE FOR SCHEMATIC DIAGRAMS (Type 6A)

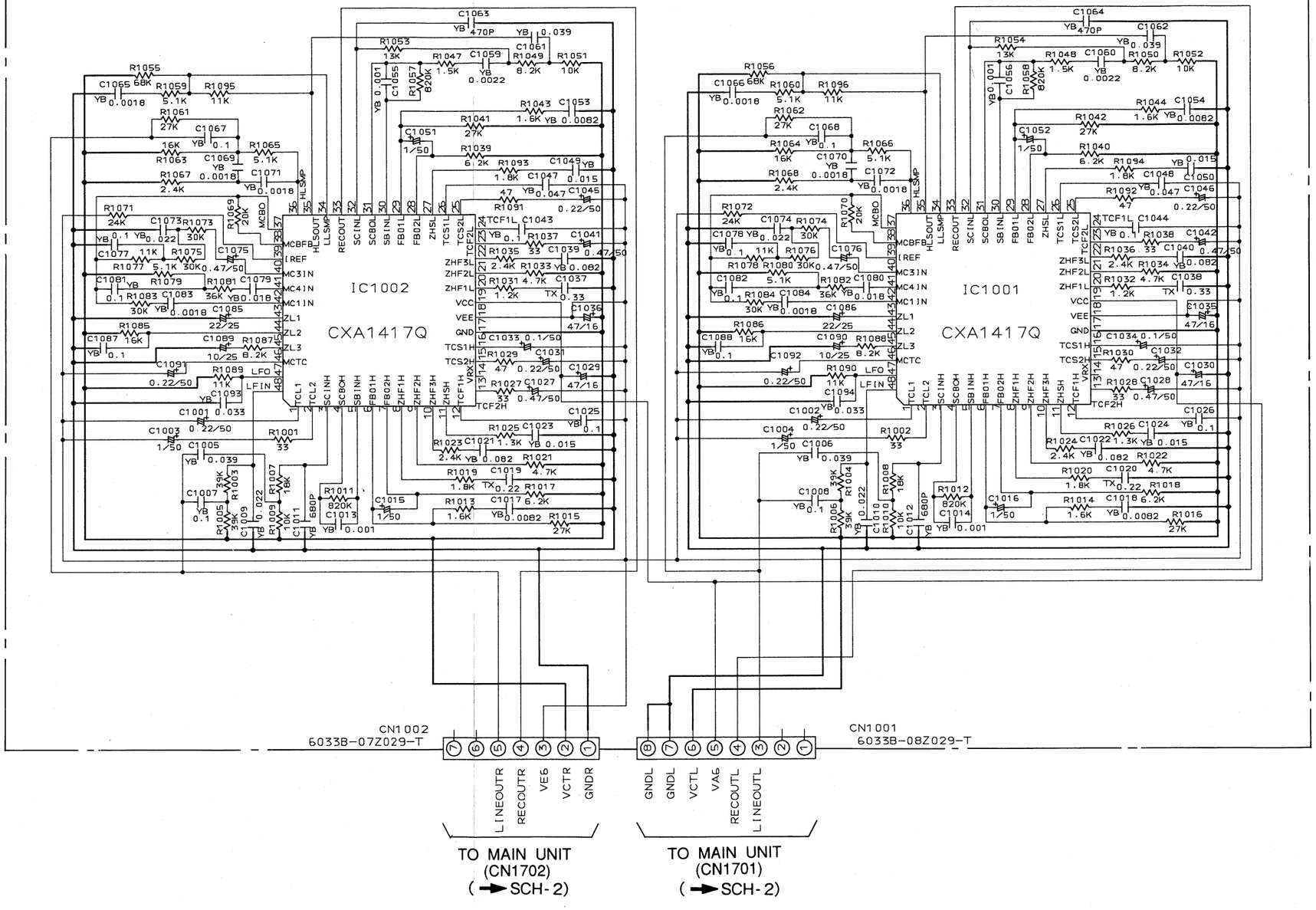
1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭ or ← V :
   DC voltage (V) in STOP mode unless otherwise noted.
   ⇦ mA or ← mA :
   DC current in STOP mode unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ⊘ : Adjusting point.
   - ◁| : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH—□ ON THE SCHEMATIC DIAGRAM:**
   - SCH—□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

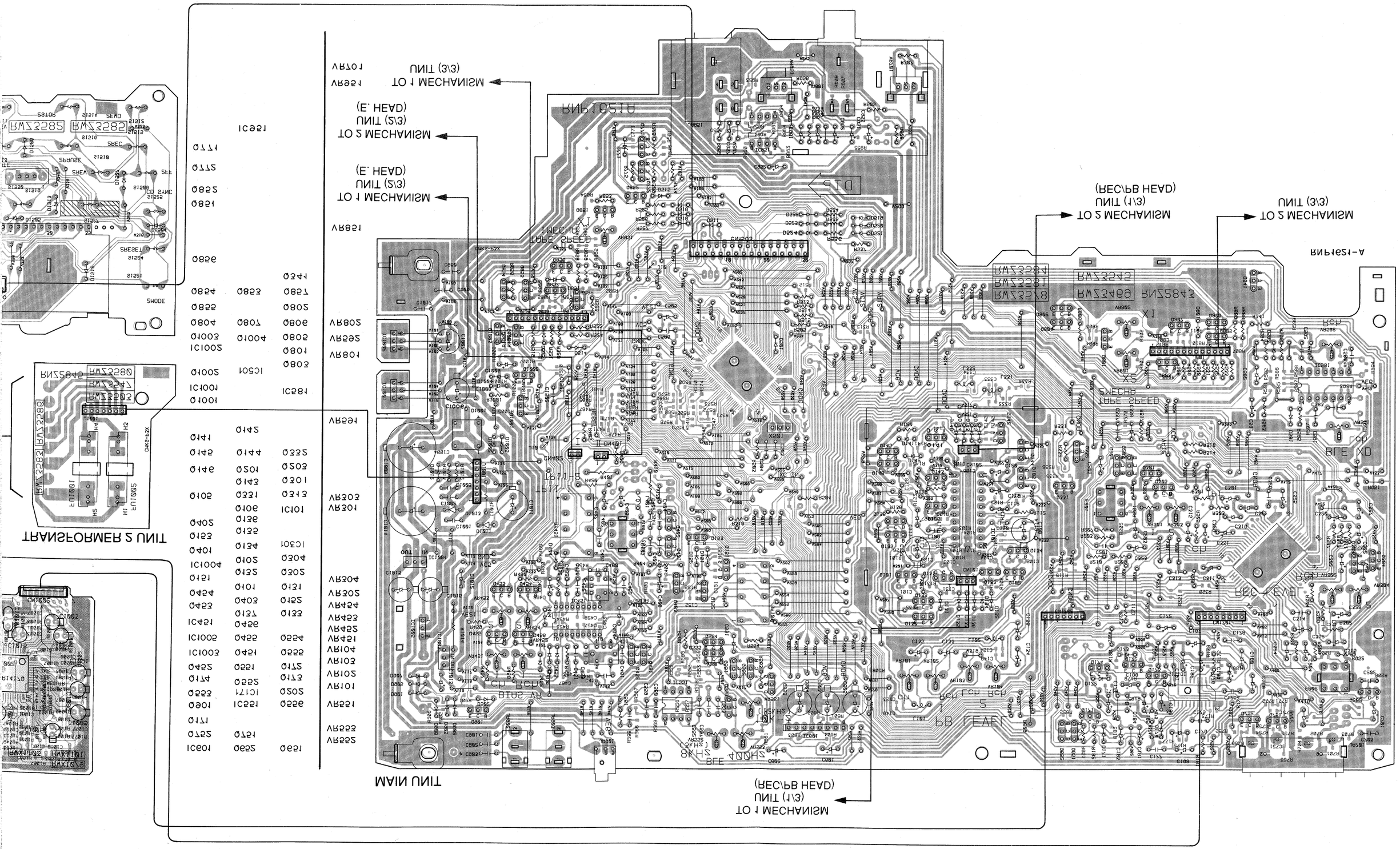
SUB UNIT

S1501	▶▶/MS	(DECK I)
S1502	◀◀/MS	
S1503	◀	
S1504	▶	
S1505	●	
S1506	■	
S1507	●	
S1508	▮▮	
S1509	▶▶/MS	(DECK II)
S1510	◀◀/MS	
S1511	◀	
S1512	▶	
S1513	●	
S1514	■	
S1515	●	
S1516	▮▮	

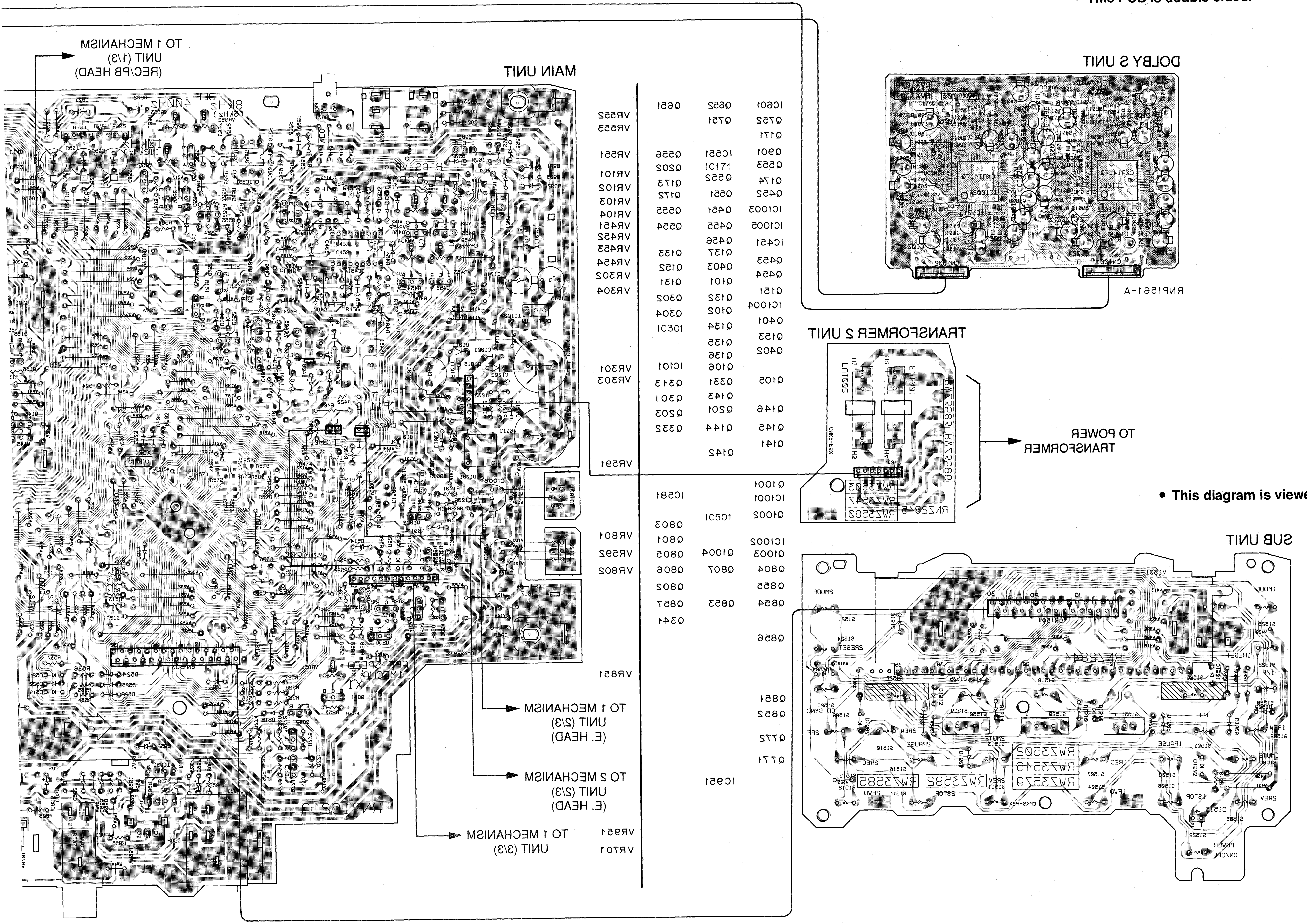
S1518 : COPY I▶II NORMAL
S1519 : COPY I▶II HIGH
S1520 : FLEX
S1521 : TIME/COUNT (DECK II)
S1522 : RESET (DECK I)
S1523 : TIME/COUNT (DECK I)
S1524 : RESET (DECK II)
S1525 : CD SYNC
S1526 : BLE (DECK I)
S1527 : BLE (DECK II)
S1528 : POWER ON/OFF
S1529 : DOLBY B – C – S
S1530 : REV • MODE RELAY/SKIP ⇆ - ⇄ - ⇆
S1531 : DOLBY OFF/ON

DOLBY S UNIT (RWX1101)

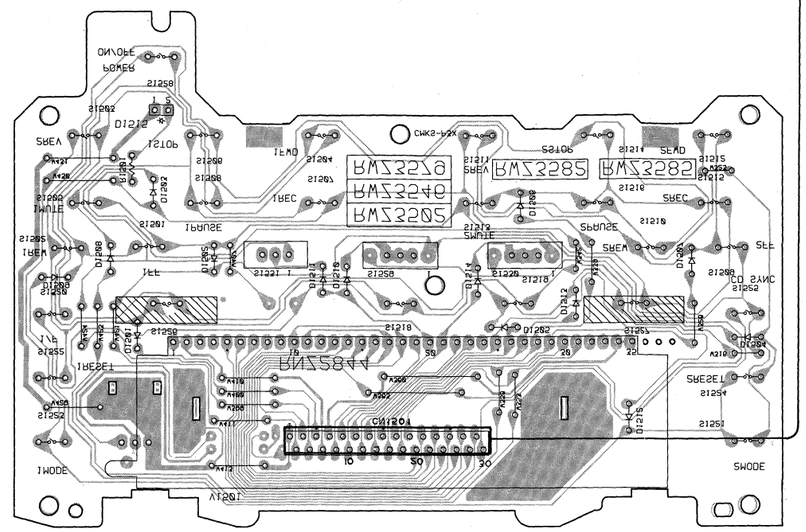


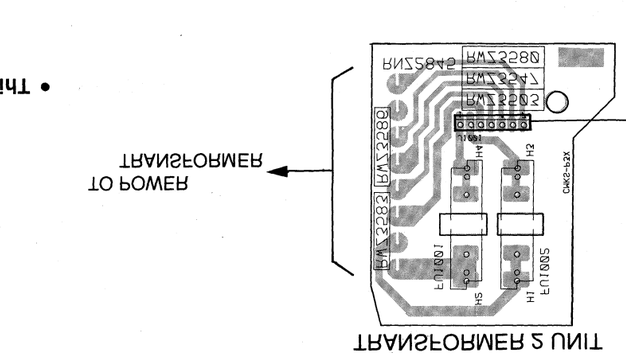

MAIN UNIT
TRANSFORMER S UNIT
TO F MECHANISM
UNIT (3\3)
(REC\PB HEAD)
TO S MECHANISM
UNIT (3\1)
(REC\PB HEAD)
TO S MECHANISM
UNIT (3\3)
(E. HEAD)
TO S MECHANISM
UNIT (3\2)
(E. HEAD)
TO F MECHANISM
UNIT (3\3)

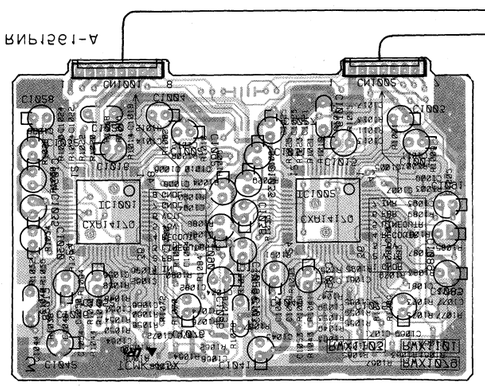
- This diagram is viewed from the gray colored foil side.
- This PCB is double sided.

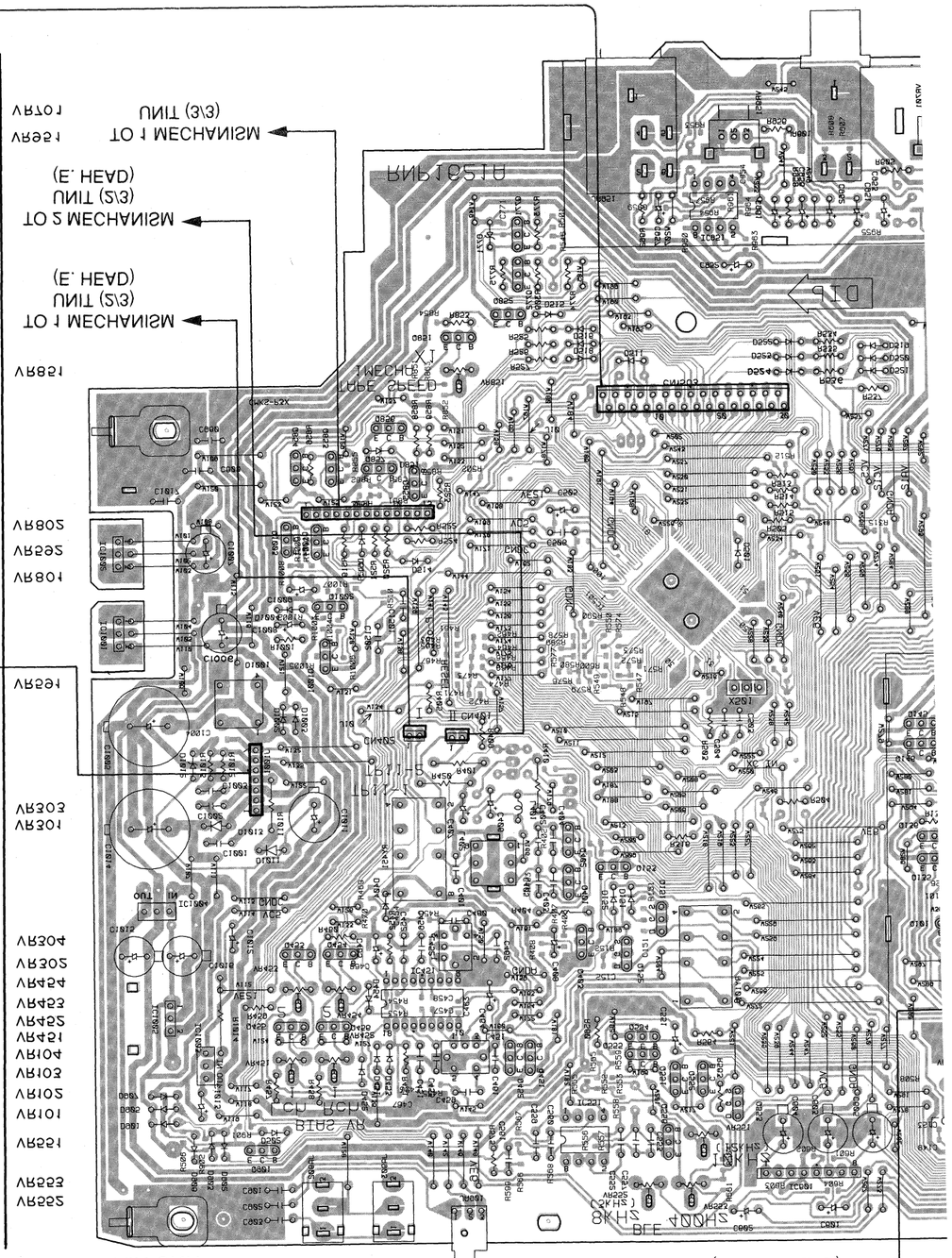

MAIN UNIT
TO 1 MECHANISM UNIT (1/3) (REC/PB HEAD)
TO 1 MECHANISM UNIT (2/3) (E. HEAD)
TO 2 MECHANISM UNIT (2/3) (E. HEAD)
TO 1 MECHANISM UNIT (3/3)
RNP1621A
DOLBY S UNIT
RNP1561-A
TRANSFORMER 2 UNIT
TO POWER TRANSFORMER
RNZ2845
SUB UNIT
RNZ2844
IC601 Q652 Q651
Q752 Q751
Q171
Q901 IC551 Q556
Q553 IC171 Q202
Q174 Q552 Q173
Q452 Q551 Q172
IC1003 Q451 Q555
IC1005 Q455 Q554
IC451 Q456
Q137 Q133
Q453 Q403 Q152
Q454 Q101 Q131
Q151 Q132 Q302
IC1004 Q102 Q304
Q401 Q134 IC301
Q153 Q135
Q402 Q136
Q106 IC101
Q105 Q331 Q313
Q143 Q301
Q146 Q201 Q203
Q145 Q144 Q332
Q141 Q142
Q1001 IC581
IC1001
Q1002 IC501
Q803
IC1002 Q801
Q1003 Q1004 Q805
Q804 Q807 Q806
Q855 Q802
Q854 Q853 Q857
Q341
Q856
Q851
Q852
Q772
Q771
IC951
VR552 VR553 VR551 VR101 VR102 VR103 VR104 VR451 VR452 VR453 VR454 VR302 VR304 VR301 VR303 VR591 VR801 VR592 VR802 VR851 VR951 VR701

- This diagram is viewed from the foil side.









- This diagram is viewed from the foil side.

- This diagram is viewed from the gray colored foil side.
- This PCB is double sided.

CT-W70RS

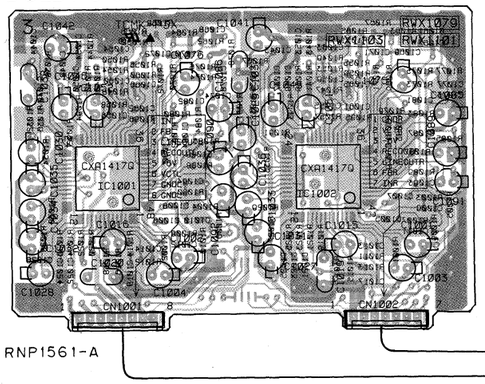
- **This diagram is viewed from the pink colored foil side.**
- **This PCB is double sided.**

NOTE FOR PCB DIAGRAMS:

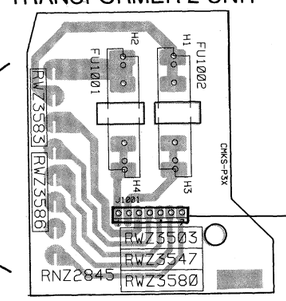
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3- terminal regulator

DOLBY S UNIT



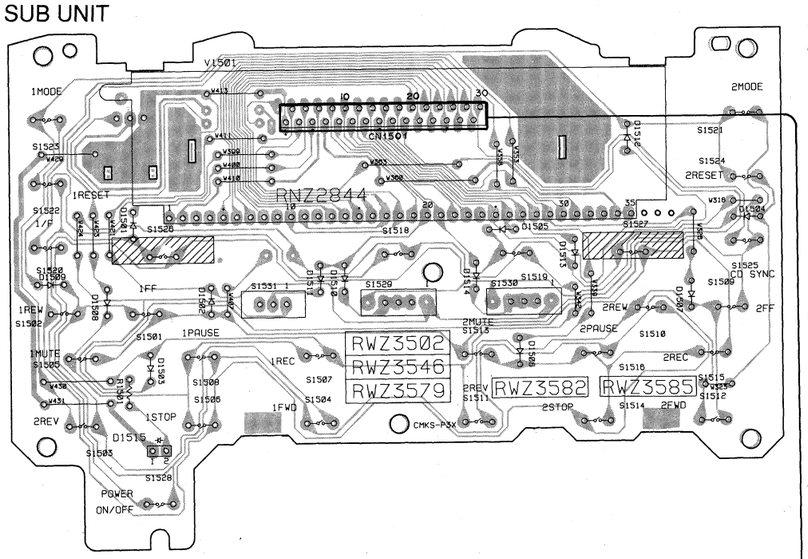
TRANSFORMER 2 UNIT



TO POWER TRANSFORMER

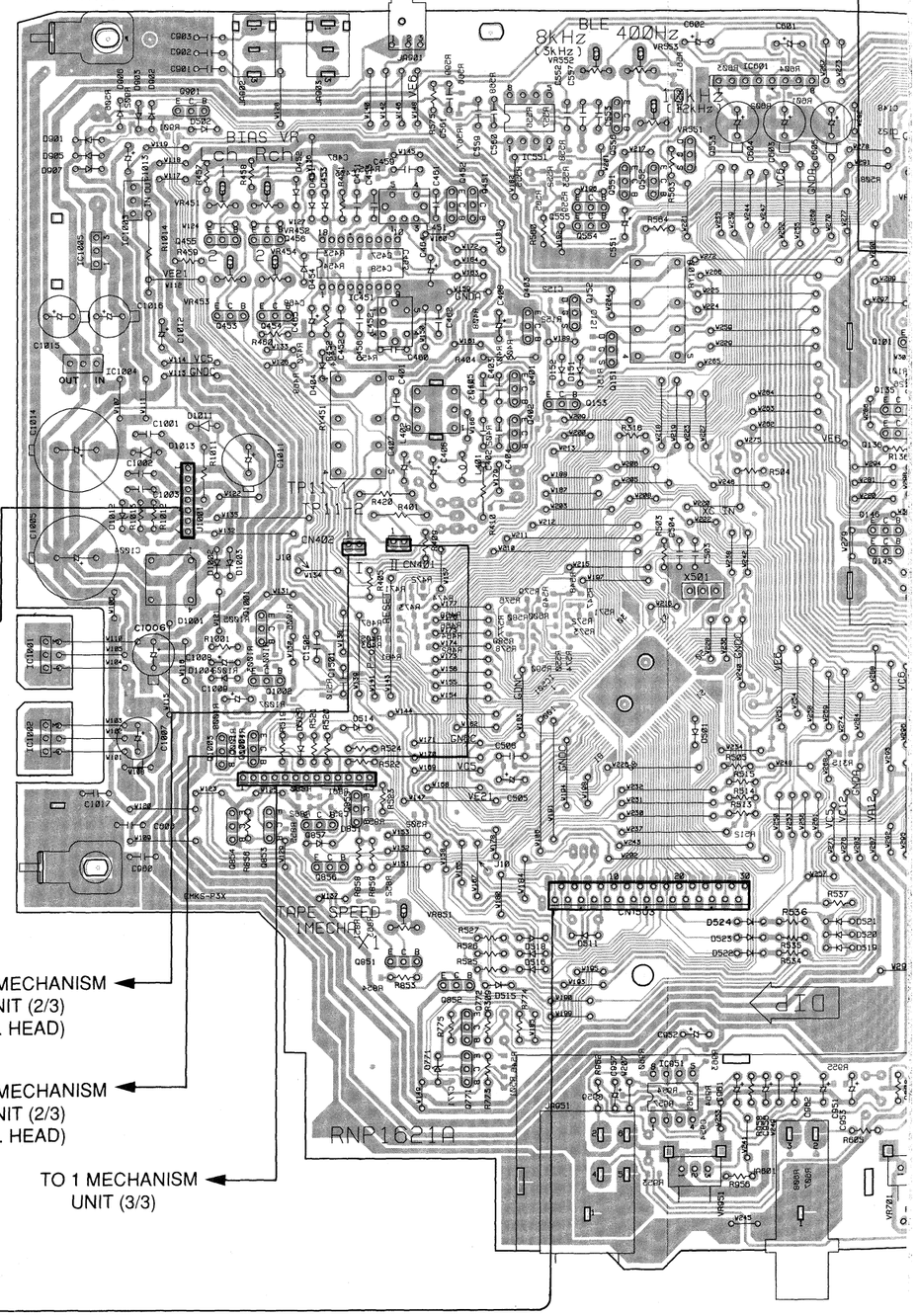
- **This diagram is viewed from the mounted parts side.**

SUB UNIT



IC601	Q652	Q651	
Q752	Q751		
Q171			
Q901	IC551	Q556	
Q553	IC101	Q202	
Q174	Q552	Q173	
Q452	Q551	Q172	
IC1003	Q451	Q555	
IC1005	Q455	Q554	
IC451	Q456		
Q453	Q137	Q133	
Q454	Q403	Q152	
Q151	Q101	Q131	
IC1004	Q132	Q302	
Q401	Q102	Q304	
Q153	Q134	IC301	
Q402	Q135		
	Q136		
	Q106	IC101	
Q105	Q331	Q313	
	Q143	Q301	
Q146	Q201	Q203	
Q145	Q144	Q332	
Q141	Q142		
Q1001		IC581	
IC1001			
Q1002	IC501	Q803	
		Q801	
IC1002			
Q1003	Q1004	Q805	
Q804	Q807	Q806	
Q855		Q802	
Q854	Q853	Q857	
		Q341	
Q856			
Q851			
Q852			
Q772			
Q771			
	IC951		

MAIN UNIT



VR552
VR553
VR551
VR101
VR102
VR103
VR104
VR451
VR452
VR453
VR454
VR302
VR304
VR301
VR303
VR591
VR801
VR592
VR802
VR851
VR951
VR701

TO 1 MECHANISM UNIT (1/3) (REC/PB HEAD)

TO 1 MECHANISM UNIT (2/3) (E. HEAD)

TO 2 MECHANISM UNIT (2/3) (E. HEAD)

TO 1 MECHANISM UNIT (3/3)

MAIN UNIT

TRANSFORMER 2 UNIT

IC601	Q652	Q651	VR552
Q752	Q751		VR553
Q171			
Q901	IC551	Q556	VR551
Q553	IC552	Q202	VR101
Q174		Q173	VR102
Q452	Q551	Q172	VR103
IC1003	Q451	Q555	VR104
IC1005	Q455	Q554	VR451
IC451	Q456		VR452
Q453	Q137	Q133	VR453
Q454	Q403	Q152	VR454
Q151	Q101	Q131	VR302
IC1004	Q132	Q302	VR304
Q401	Q102	Q304	
Q153	Q134	IC301	
Q402	Q135		
	Q136		
Q105	Q106	IC101	VR301
	Q331	Q313	VR303
Q146	Q143	Q301	
Q145	Q201	Q203	
Q141	Q144	Q332	
	Q142		VR591
Q1001			
IC1001		IC581	
Q1002	IC501		
		Q803	
IC1002		Q801	VR801
Q1003	Q1004	Q805	VR592
Q804	Q807	Q806	VR802
Q855		Q802	
Q854	Q853	Q857	
		Q341	
Q856			
			VR851
Q851			
Q852			
Q772			
Q771			
	IC951		
			VR951
			VR701

TO 1 MECHANISM UNIT (1/3) (REC/PB HEAD)

TO 1 MECHANISM UNIT (2/3) (E. HEAD)

TO 2 MECHANISM UNIT (2/3) (E. HEAD)

TO 1 MECHANISM UNIT (3/3)

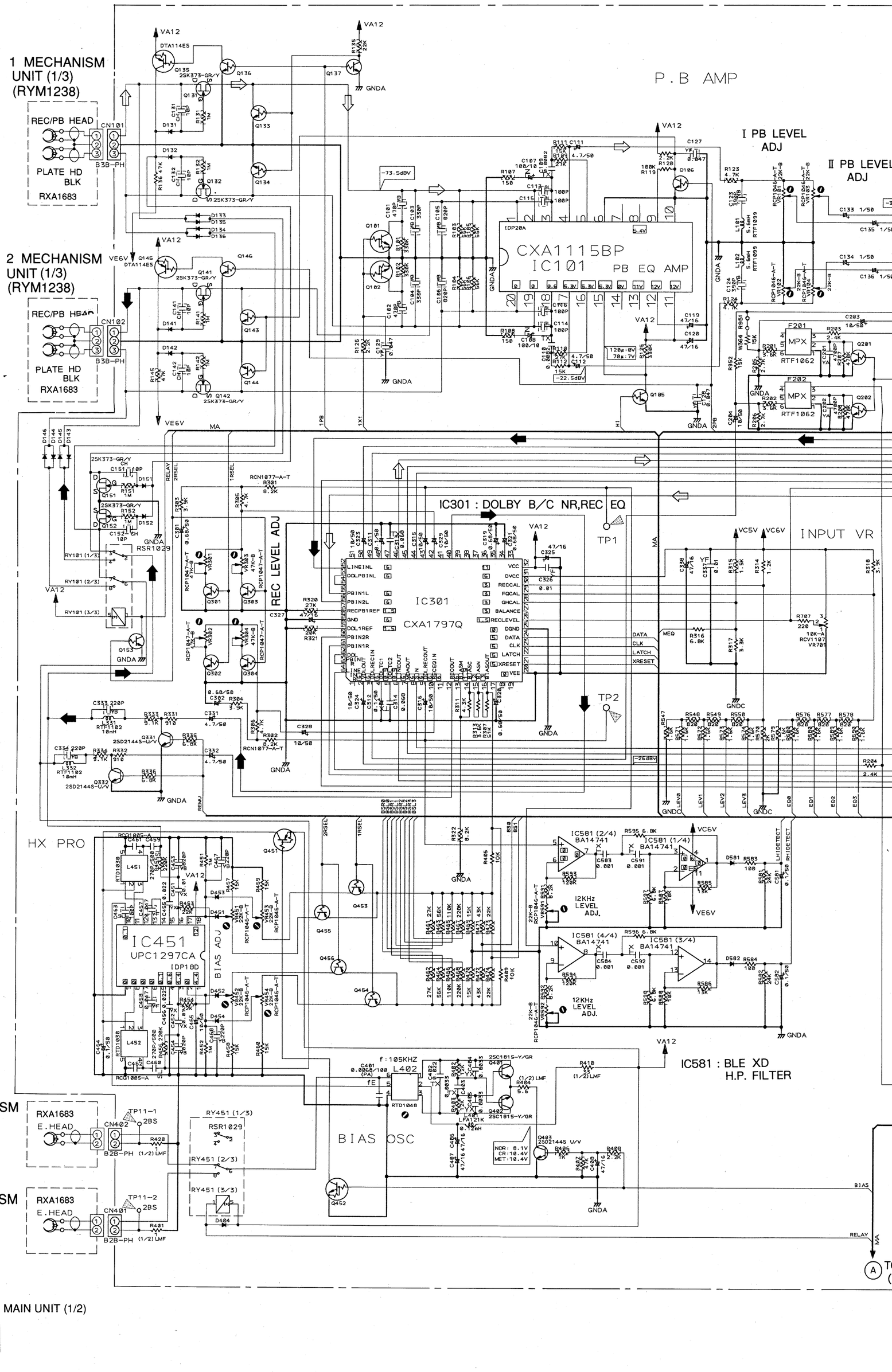
TO 2 MECHANISM UNIT (1/3) (REC/PB HEAD)

TO 2 MECHANISM UNIT (3/3)

RNP1621-A

RNP1621A

2. MAIN UNIT (1/2)



SCH—2 MAIN UNIT (1/2)

MAIN UNIT(1/2)
(RWZ3469)

MIC AMP

H.PHONE AMP

CD SYNC.

SR

BLE PILOT SIGNAL FILTER

TO DOLEY S UNIT CN1001 (→SCH-1)

TO DOLBY S UNIT CN1002 (→SCH-1)

TO MAIN UNIT(2/2) (→SCH-3)

TO MAIN UNIT(2/2) (→SCH-3)

IC171 :* FLEX (1/f) SYSTEM

* FLEX System : Freguency Level Expander System.

SIGNAL ROUTE
⇨ : PLAY BACK SIGNAL
➡ : RECORDING SIGNAL

NOTE : If the parts are not identified in the diagram the followings are used.

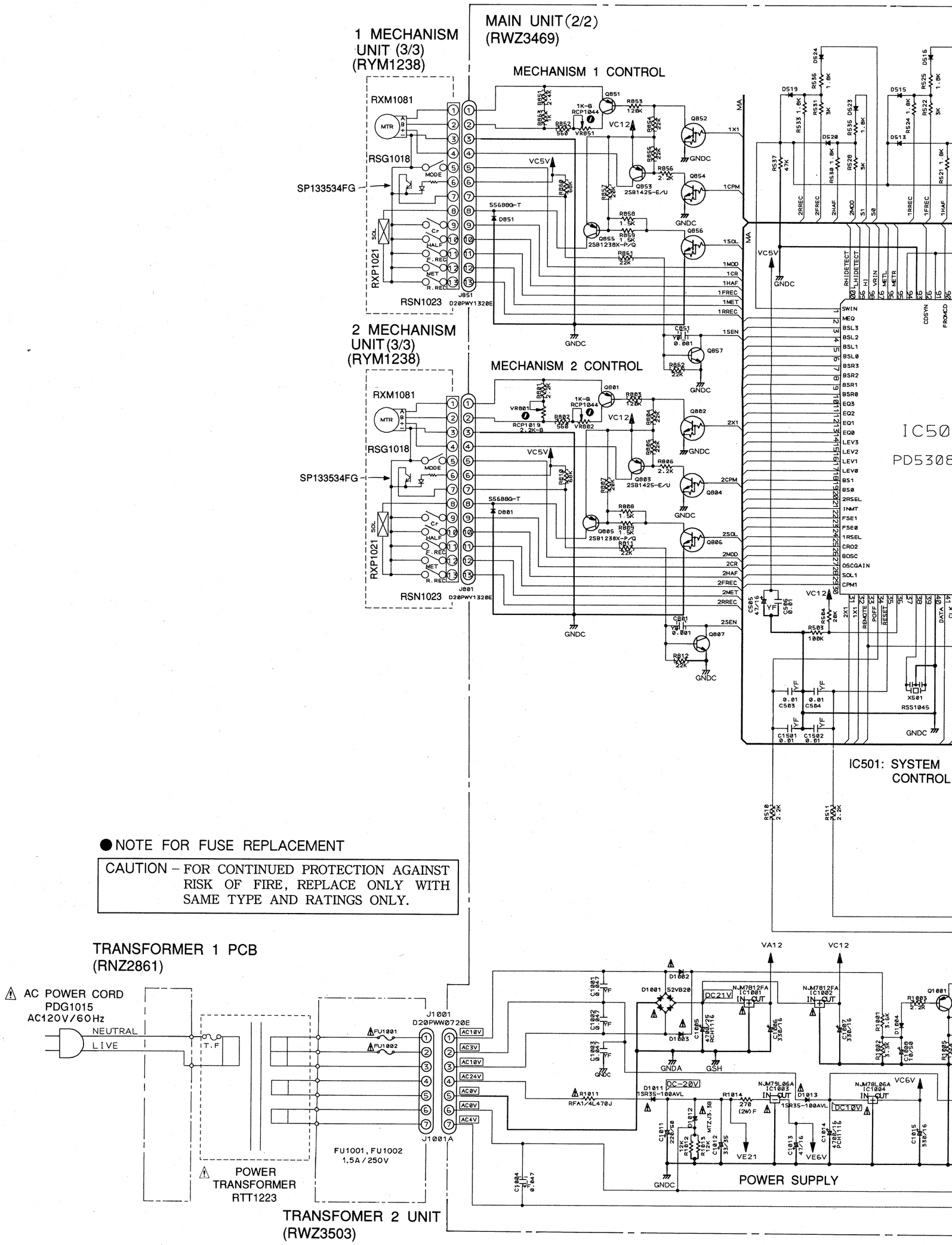
SCH-2

1SS254
2SA1309A-R/S
2SC3311A-R/S
DTA114TS
DTC114TS
XDA114ES
XDC124ES

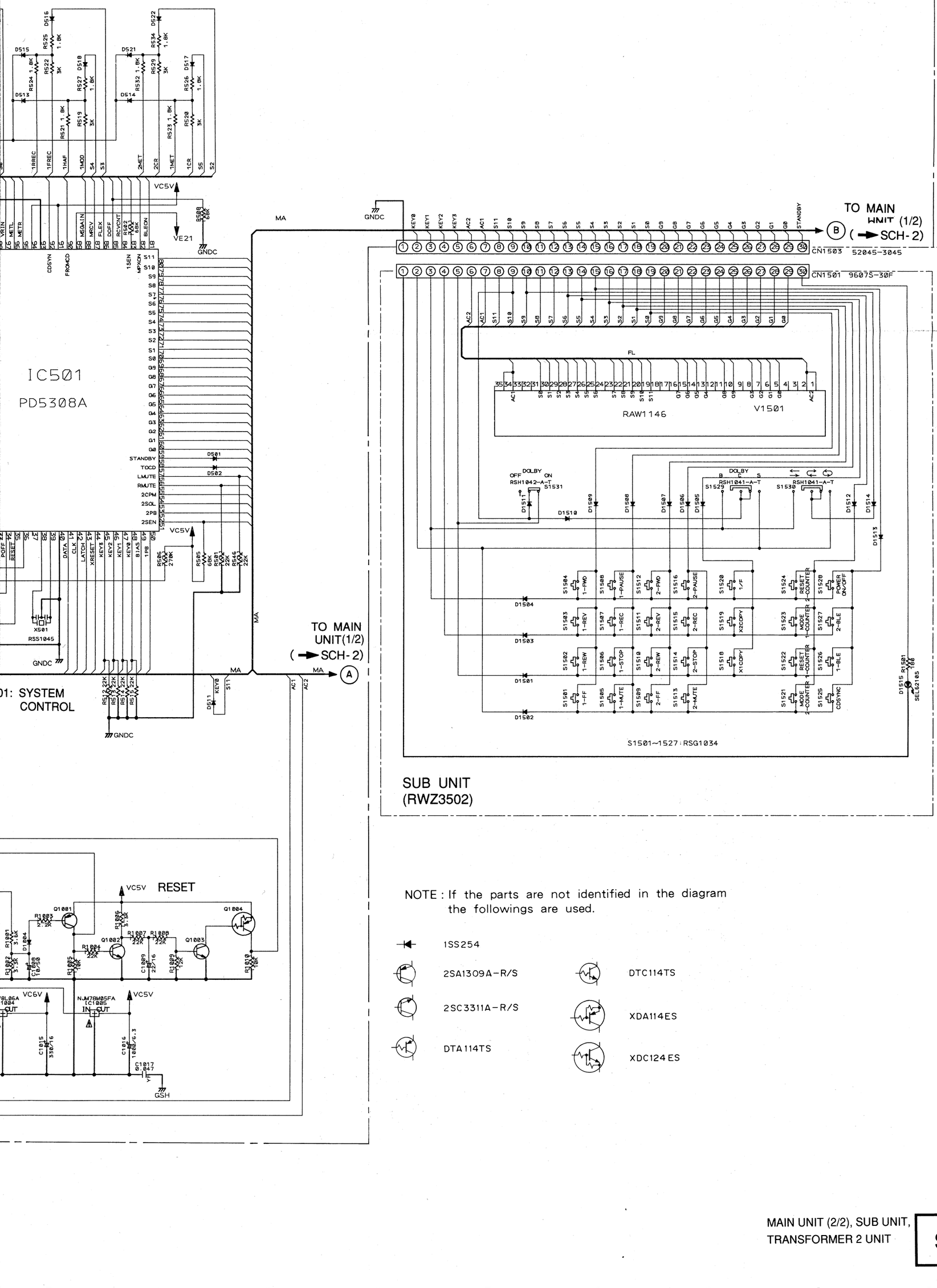
MAIN UNIT (1/2)

SCH-2

3. MAIN UNIT (2/2), SUB UNIT, TRANSFORMER 2 UNIT



SCH—3 MAIN UNIT (2/2), SUB UNIT, TRANSFORMER 2 UNIT



NOTE : If the parts are not identified in the diagram the followings are used.

- 1SS254
- 2SA1309A-R/S
- 2SC3311A-R/S
- DTA114TS
- DTC114TS
- XDA114ES
- XDC124ES

MAIN UNIT (2/2), SUB UNIT, TRANSFORMER 2 UNIT

SCH—3

8. PCB PARTS LIST

NOTES:

- Parts marked by "NSP"are generally unavailable because they are not in our Master Spare Parts List.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by " ⊙ "are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47K ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 × 10^1 → 561 ····· RD1/8PM [5][6][1] J
47k Ω → 47 × 10^3 → 473 ····· RD1/4PS [4][7][3] J
0.5 Ω → OR5 ····· RN2H [0][R][5] K
1 Ω → 010 ····· RS1P [0][1][0] K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 × 10^1 → 5621 ····· RN1/4PC [5][6][2][1] F

Mark	No.	Description	Part No.

LIST OF ASSEMBLIES

NSP	MOTHER UNIT	RWM1796
	├MAIN UNIT	RWZ3469
	│└DOLBY S UNIT	RWX1101
	├SUB UNIT	RWZ3502
	└TRANSFORMER 2 UNIT	RWZ3503

DOLBY S UNIT

SEMICONDUCTORS

	IC1001 ,IC1002	CXA1417Q

CAPACITORS

	C1003 ,C1004 ,C1015 ,C1016	CEJA010M50-TS
	C1051 ,C1052	CEJA010M50-TS
	C1089 ,C1090	CEJA100M25-TS
	C1085 ,C1086	CEJA220M25-TS
	C1033 ,C1034	CEJAR10M50-TS
	C1001 ,C1002 ,C1031 ,C1032	CEJAR22M50-TS
	C1045 ,C1046 ,C1091 ,C1092	CEJAR22M50-TS
	C1027 ,C1028 ,C1041 ,C1042	CEJAR47M50-TS
	C1075 ,C1076	CEJAR47M50-TS
	C1019 ,C1020	CFTYA224J50
	C1037 ,C1038	CFTYA334J50
	C1013 ,C1014 ,C1055 ,C1056	CKSQYB102K50
	C1007 ,C1008 ,C1025 ,C1026	CKSQYB104K25
	C1043 ,C1044 ,C1067 ,C1068	CKSQYB104K25
	C1077 ,C1078 ,C1081 ,C1082	CKSQYB104K25
	C1087 ,C1088	CKSQYB104K25
	C1023 ,C1024 ,C1049 ,C1050	CKSQYB153K50
	C1065 ,C1066 ,C1069 -C1072	CKSQYB182K50
	C1083 ,C1084	CKSQYB182K50
	C1079 ,C1080	CKSQYB183K50
	C1059 ,C1060	CKSQYB222K50
	C1009 ,C1010 ,C1073 ,C1074	CKSQYB223K50
	C1093 ,C1094	CKSQYB333K50
	C1005 ,C1006 ,C1061 ,C1062	CKSQYB393K50
	C1063 ,C1064	CKSQYB471K50
	C1047 ,C1048	CKSQYB473K50
	C1011 ,C1012	CKSQYB681K50
	C1017 ,C1018 ,C1053 ,C1054	CKSQYB822K50
	C1021 ,C1022 ,C1039 ,C1040	CKSQYB823K25
	C1029 ,C1030 ,C1035 ,C1036	RCH1095

RESISTORS

	ALL Resistors	RS1/10S□□□J

OTHERS

	CN1002	CONNECTOR	6033B-07Z029
	CN1001	CONNECTOR	6033B-08Z029

MAIN UNIT

SEMICONDUCTORS

	IC581	BA14741
	IC101	CXA1115BP
	IC301	CXA1797Q
⚠	IC1001,IC1002	NJM7812FA
⚠	IC1004	NJM78L06A
⚠	IC1005	NJM78M05FA
⚠	IC1003	NJM79L06A
	IC171	PA0059AM
	IC501	PD5308A
	IC451	UPC1297CA
	IC551 ,IC951	XRA15218
	IC601	XRA15218N
	Q1001 ,Q174 ,Q801 ,Q851	2SA1309A
	Q805 ,Q855	2SB1238X
	Q803 ,Q853	2SB1425
	Q401 ,Q402	2SC1815
	Q1002 ,Q1003 ,Q341 ,Q807 ,Q857	2SC3311A
	Q331 ,Q332 ,Q403 ,Q751 ,Q752	2SD2144S
	Q553	2SK246
	Q131 ,Q132 ,Q141 ,Q142	2SK373

Mark	No.	Description	Part No.
	Q151 ,Q152		2SK373
	Q771 ,Q772		DTA114TS
	Q105 ,Q106 ,Q133 ,Q134		DTC114TS
	Q136 ,Q137 ,Q143 ,Q144 ,Q146		DTC114TS
	Q153 ,Q173 ,Q201 ,Q202		DTC114TS
	Q301 -Q304 ,Q551 ,Q552		DTC114TS
	Q1004 ,Q135 ,Q145 ,Q451		XDA114ES
	Q453 -Q456		DTA144TS
	Q554 -Q556		XDC114ES
	Q101 ,Q102 ,Q171 ,Q172 ,Q203		XDC124ES
	Q452 ,Q651 ,Q652 ,Q802 ,Q804		XDC124ES
	Q806 ,Q852 ,Q854 ,Q856 ,Q901		XDC124ES
⚠	D1011 ,D1013		1SR35-100AVL
	D1004 ,D131 -D136		1SS254
	D141 -D146 ,D151 ,D152		1SS254
⚠	D1002 ,D1003		1SS254
	D171 -D174 ,D404 ,D451 -D454		1SS254
	D501 ,D502 ,D511 ,D513 -D524		1SS254
	D581 ,D582 ,D901 -D903		1SS254
	D905 -D907		1SS254
⚠	D1012		MTZJ3.3B
	D771		MTZJ3.9B
⚠	D1001		S2VB20
	D801 ,D851		S5688G
COILS AND FILTERS			
	L401		LFA121K
	L451 ,L452		RTD1030
	L402		RTD1048
	F201 ,F202		RTF1062
	L101 ,L102		RTF1099
	L331 ,L332		RTF1102
SWITCHES AND RELAYS			
	RY101 ,RY451		RSR1029
CAPACITORS			
	C459 ,C460		CCCSL271K500
	C131 ,C132 ,C141 ,C142		CCSQCH100D50
	C148 ,C149 ,C151 ,C152		CCSQCH100D50
	C113 -C116 ,C463 ,C751 ,C752		CCSQSL101J50
	C954 ,C955		CCSQSL101J50
	C107 ,C108		CEANL101M10
	C133 -C136 ,C186 ,C205		CEAS010M50
	C701 ,C702 ,C952 ,C957		CEAS010M50
	C1008 ,C171 ,C172 ,C203 ,C204		CEAS100M50
	C315 ,C316 ,C323 ,C324		CEAS100M50
	C328 ,C329 ,C465 ,C951 ,C956		CEAS100M50
	C961		CEAS100M50
	C184 ,C187 -C189		CEAS101M10
	C603 ,C604		CEAS101M16
	C1016		CEAS102M6R3
	C1009		CEAS220M16
	C1011		CEAS221M50
	C1012		CEAS330M35
	C1006 ,C1007 ,C1015 ,C605		CEAS331M16

Mark	No.	Description	Part No.
	C1013 ,C119 ,C120 ,C183 ,C325		CEAS470M16
	C327 ,C338 ,C406 -C408 ,C505		CEAS470M16
	C953 ,C962		CEAS470M16
	C111 ,C112 ,C179 -C182 ,C185		CEAS4R7M50
	C191 ,C198 ,C199 ,C331 ,C332		CEAS4R7M50
	C311 ,C312 ,C464 ,C581 ,C582		CEASR10M50
	C601 ,C602		CEASR22M50
	C551		CEASR47M50
	C301 ,C302 ,C319 -C321		CEASR68M50
	C583 ,C584 ,C591 ,C592		CFTXA102J50
	C175 ,C176		CFTXA103J50
	C177 ,C178		CFTXA222J50
	C402		CFTXA223J50
	C403		CFTXA332J50
	C201 ,C202		CFTXA472J50
	C313 ,C314		CFTXA683J50
	C109 ,C110		CFTXA822J50
	C960		CGCYF104Z25
	C451 ,C452		CGCYX103K25
	C561		CGCYX104K25
	C455 ,C456		CGCYX223K25
	C404 ,C405		CGCYX332K25
	C559		CGCYX333K25
	C557		CKCYB221K50
	C553		CKCYB272K50
	C560		CKCYB472K50
	C552		CKCYB682K50
	C1501 ,C1502 ,C326 ,C337		CKCYF103Z50
	C503 ,C504 ,C506 ,C901 ,C903		CKCYF103Z50
	C1001 -C1003 ,C1017 ,C606 ,C703		CKCYF473Z50
	C902		CKCYF473Z50
	C801 ,C851		CKSQYB102K50
	C333 ,C334		CKSQYB221K50
	C467 ,C468		CKSQYB222K50
	C103 ,C104		CKSQYB331K50
	C123 ,C124		CKSQYB391K50
	C101 ,C102		CKSQYB471K50
	C959		CKSQYB681K50
	C105 ,C106 ,C453 ,C454		CKSQYB821K50
	C1004 ,C127 -C129 ,C457 ,C458		CKSQYF473Z50
	C711 ,C771		CKSQYF473Z50
	C401		CQPA682J100
	C1014 (4700/16)		PCH1116
	C461 ,C462 (0.043)		RCG1005
	C1005 (4700/25)		RCH1116
RESISTORS			
	R401 ,R420		RD1/2LMF010J
	R410		RD1/2LMF330J
	R404		RD1/2LMF5R6J
	R583 ,R584		RD1/6PM101J
	R119 ,R503 ,R774 ,R775		RD1/6PM104J
	R451 ,R452		RD1/6PM105J

Mark	No.	Description	Part No.
	R405 ,R409		RD1/6PM103J
	R176 ,R182 ,R314		RD1/6PM122J
	R1012 ,R1013 ,R210		RD1/6PM123J
	R853		RD1/6PM124J
	R808 ,R809 ,R858 ,R859		RD1/6PM152J
	R112 ,R457 -R460 ,R951 ,R952		RD1/6PM153J
	R956 ,R958		RD1/6PM181J
	R521 ,R523 -R527 ,R530		RD1/6PM182J
	R532 -R536		RD1/6PM182J
	R504		RD1/6PM203J
	R707		RD1/6PM221J
	R120 ,R341 ,R713 ,R806 ,R856		RD1/6PM222J
	R181 ,R513 -R515 ,R651		RD1/6PM223J
	R203 ,R204		RD1/6PM242J
	R206		RD1/6PM272J
	R209 ,R519 ,R520 ,R522		RD1/6PM302J
	R528 ,R529 ,R531		RD1/6PM302J
	R317		RD1/6PM332J
	R1001 ,R313		RD1/6PM362J
	R303 ,R304 ,R318		RD1/6PM392J
	R560		RD1/6PM431J
	R311		RD1/6PM432J
	R605 ,R606		RD1/6PM470J
	R305 ,R306		RD1/6PM472J
	R136 ,R537 ,R564		RD1/6PM473J
	R207		RD1/6PM474J
	R307		RD1/6PM513J
	R575		RD1/6PM562J
	R773		RD1/6PM681J
	R316 ,R595 ,R596 ,R962		RD1/6PM682J
	R505 ,R563		RD1/6PM683J
	R331 ,R332		RD1/6PM911J
⚠	R1011		RFA1/4L470J
	R1014		RS2LMF271J
	R609		RS2LMF750J
	VR801 (2.2K)		RCP1019
	VR802 ,VR851 (1K)		RCP1044
	VR551 (10K)		RCP1045
	VR101 -VR104 ,VR451 -VR454 ,VR552 (22K)		RCP1046
	VR591 ,VR592 (22K)		RCP1046
	VR301 -VR304 ,VR553 (47K)		RCP1047
	VR951 (10K)		RCV1090
	VR701 (10K)		RCV1107
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN1503	30P CONNECTOR	52045-3045
	CN401 ,CN402	CONNECTOR POST	B2B-PH-K
	CN101 ,CN102	CONNECTOR POST	B3B-PH-K
		PCB BINDER	DEF1015
	JA901	JACK	PKN1005
	JA701	JACK	RKB-020
	JA601	JACK	RKN1002
	JA951	JACK	RKN1003
	JA902 ,JA903	JACK	RKN1004
		PLATE (SPTE)	RNE1588
	X501 (6.3MHz)	CERAMIC RESONATOR	RSS1045
		EARTH PLATE	VNF-091

SUB UNIT

SEMICONDUCTORS

D1501 -D1514		1SS254
D1515		SEL6210S

SWITCHES AND RELAYS

S1501 -S1516 ,S1518 -S1528		RSG1034
S1529 ,S1530		RSH1041
S1531		RSH1042

RESISTORS

ALL Resistors		RD1/6PM□□□J

OTHERS

CN1501	30P CONNECTOR	9607S-30F
V1501	FL INDICATOR TUBE	RAW1146

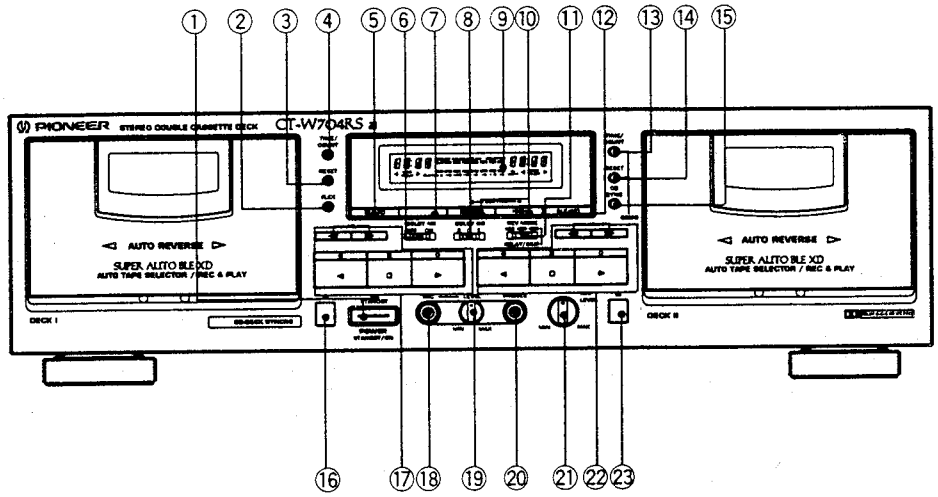
TRANSFORMER 2 UNIT

OTHERS

	FUSE CLIP	AKR1003

9. PANEL FACILITIES

The illustration shows model CT-W704RS.



① **POWER STANDBY/ON switch/indicator**
The POWER switch activates the secondary transformer only. Even when the switch is in the STANDBY position, there will be a power flow to the deck's circuits as long as the power cord is connected to a power outlet. The indicator lights when the unit functions enter STANDBY,and it goes off when the power is turned on.

② **FLEX button**

③ **DECK I counter reset button (RESET)**

④ **DECK I counter mode button (TIME/COUNT)**

⑤ **DECK I BLE XD button (Except for CT-W604RS)**

⑥ **DOLBY NR ON/OFF switch**

⑦ **(CT-W604RS only) Synchro copy button (COPY I ► II)**
Normal: Normal speed copy

⑧ **DOLBY* NR switch (B/C/S)**
*

- *Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.*
- *"DOLBY", the double-D symbol and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.*

⑨ **Function display**

⑩ **(CT-W704RS) Synchro copy buttons (COPY I ►II)**
NORMAL: Normal speed copy
HIGH : Double speed copy
(CT-W604RS only) Synchro copy button (COPY I ►II)
HIGH: Double speed copy
DECK II BLE XD button

⑪ **Reverse mode switch (REV MODE RELAY/SKIP)**

⑫ **DECK II BLE XD button (CT-W704RS)**

⑬ **DECK II counter mode button (TIME/COUNT)**

⑭ **DECK II counter reset button (RESET)**

⑮ **CD · DECK SYNCHRO recording button (CD SYNC)**

⑯ **DECK I eject button (⏏)**
- If the tape is moving (recording playback, tape winding, etc.), press the stop (■) button before pressing this button.

NOTE:
If the power is turned off while the tape is moving, the cassette door may remain locked. In this case, turn the power on before pressing the eject (⏏) button.

⑰ **DECK I operation buttons**
◄ : Reverse playback
► : Forward playback
◄◄/MS : Fast reverse/music search
■ : Stop
►►/MS : Fast forward/music searchrs
(CT-W704RS only):
O : Recording mute
II : Pause
● : Recording

⑱ **Microphone jack (MIC) (CT-W704RS only)**

⑲ **MIC LEVEL control (CT-W704RS only)**

⑳ **Headphones jack (PHONES)**

㉑ **Recording level control (REC LEVEL)**

㉒ **DECK II operation buttons**
◄ : Reverse playback
► : Forward playback
◄◄/MS : Fast reverse/music search
■ : Stop
►►/MS : Fast forward/music search
O : Recording mute
II : Pause
● : Recording

㉓ **DECK II eject button (⏏)**
- If the tape is moving (recording, playback, tape winding, etc.), press the stop (■) button before pressing this button.

NOTE:
If the power is turned off while the tape is moving, the cassette door may remain locked. In this case, turn the power on before pressing the eject (⏏) button.

10. SPECIFICATIONS

System ..... 4-track, 2-channel stereo
Heads
CT-W704RS ..... "Hard Permalloy" recording/playback head X 2
"Ferrite" erasing head X 2
CT-W604RS ..... "Hard Permalloy" recording/playback head X 1
"Hard Permalloy" playback head X 1
"Ferrite" erasing head X 1
Motor ..... DC servo motor X 2
Wow and Flutter ..... 0.09% (WRMS)
Fast Winding Time ..... Approximately 100 seconds (C-60 tape)

Frequency Response
–20 dB recording:
TYPE IV (Metal) tape ..... 20 to 20,000 Hz
TYPE II (High/CrO_2) tape ..... 20 to 19,000 Hz
TYPE I (Normal) tape ..... 20 to 18,000 Hz
Signal-to-Noise Ratio
Dolby NR OFF ..... More than 57 dB
Noise Reduction Effect
Dolby B-type NR ON ..... More than 10 dB (at 5 kHz)
Dolby C-type NR ON ..... More than 19 dB (at 5 kHz)
Dolby S-type NR ON ..... More than 22 dB (at 5 kHz)
Harmonic Distortion ..... No more than 0.8% (at –4 dB: 160 nwb/m)

Input (Sensitivity)
LINE (INPUT) ..... 100 mV (Input impedance 68 kΩ)
MIC(INPUT) 0.63mV
(CT-W704RS : U.S. and Canadian models only)
Output (Reference level)
LINE (OUTPUT) ..... 0.5 V (Output impedance 1.9 kΩ
Headphones ..... 1.33 mW (Load impedance 32Ω)

Subfunctions

- Super AUTO BLE XD tuning system
- Automatic reverse
- Double recording/playback reverse (CT-W704RS only)
- DOLBY HX PRO recording function
- DOLBY B/C/S type NR
- Relay recording (CT-W704RS only)
- Music search over ±15 selections
- Synchronized copy start
- High-speed and normal-speed copy (DECK I → DECK II)
- Relay playback/blank skip
- CD • DECK SYNCHRO recording capability
- Peak level meter with peak-hold function
- MPX FILTER ((Interlocks with DOLBY NR switch) (CT-W704RS only))
- Automatic space recording mute
- Automatic tape selector
- SR System remote control available
- 2-mode electronic 4-digit twin tape counter
- Microphone jack
(CT-W704RS : U.S. and Canadian models only)
- Headphone jack
- FLEX system

Miscellaneous

Power Requirements
U.S. and Canadian models ..... AC 120 V, 60 Hz
U.K. model ..... AC 230–240 Volts~, 50/60 Hz

Power Consumption
CT-W704RS/CT-W604RS ..... 19 W
Dimensions ..... 420(W) X 125(H) X 250(D) mm
16-1/2(W) X 4-7/8(H) X 9-13/16(D) in.
Weight (without package)
CT-W704RS/CT-W604RS ..... 4.0 kg (8 lb 13 oz.)

Accessories

Operating instructions 1
Connection cord with pin plugs 2
SR Remote control cord 1
CD • DECK SYNCHRO control cord 1

NOTE:

Specifications and design subject to possible modifications without notice, due to improvements.